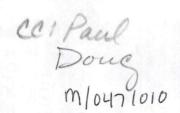


# **American Gilsonite Company**

Bonanza Minesite 29950 South Bonanza Highway Bonanza Utah 84008 • Phone (435) 789-1921 • Fax (435) 789-1956



February 24, 2006

Mr. James F. Kohler, Chief, Solid Minerals Branch United States Department of the Interior Bureau of Land Management Utah State Office P.O. Box 45155 Salt Lake City, UT 84145-0155

Re: UTU-78405, I-30 Mining Plan

Dear Mr. Kohler:

Please find attached the revised mine plan for our I-30 mine which is located on Federal lease UTU-78405 (T9S R24E, Section 15, Lot 1, NWSW, containing 79.64 acres). The plan and maps have been revised per your letter dated February 17, 2006. If you require any additional information please do not hesitate to call.

Regards,

Dave Lewis V.P. Operations

Cc:

Pete Sokolosky - Vernal Field Office

Paul Baker - DOGM



#### UTU-78405

### November 18, 2005 Revised: February 24, 2006

Mining Plan for American Gilsonite Co. I-30 mine

### **Ownership**

American Gilsonite Company 29950 So. Bonanza Hwy Bonanza, UT 84008 Phone: 435-789-1921

Phone: 435-789-1921 Fax: 435-789-1956

David N. Lewis is the Vice President of Operations and is the responsible person for notices and orders for Federal Lease UTU-78405.

#### <u>Maps</u>

See Attachments

### **Description of the Affected Lands**

### **Vegetative** Cover

Vegetation in the lease area consists of mixed desert shrub types, such as shadscale, budsage, big sagebrush, rabbitbrush, black sagebrush, winterfat and minor amount of cactus. Common grasses are: Galleta, Indian Ricegrass, Squirrltail, Western Wheatgrass, sand dropseed, blue grama, and needle and thread. Forbs are generally Scarlet Globemallow and Longleaf Phlox. There are no known threatened or endangered plant species in the lease area.

# Climate and air quality

Climate can be described as "High Desert", with an average annual precipitation of approximately 10 inches. Summers are extremely hot and dry with occasional short local downpours from thunderstorms. July temperatures average near 70 degrees F. with a 107 degrees F. maximum and as is typical of deserts; temperatures have a wide diurnal range. By contrast, the January average temperature is about 14 degrees F. and a minimum as low as -40 degrees F., in general the winters are cold and dry with little snow.

Air quality is sometimes impacted by windborne dust and soil as is common in the arid desert environment. Due to the size and nature of the operation, no adverse or significant impact to air quality is expected.

### Indigenous wildlife

There are no known endangered species inhabiting the lease area. All wildlife is transitory with no permanent dwellings in the lease area. Animals that have been seen transiting the area are prairie dogs, rabbit, deer, pronghorn antelope, coyote and various species of mice. No wild horses have ever been seen. Raptor species prevalent to the area are golden eagle, prairie falcon and the red tailed hawk but no known aeries are located on or near the lease.

### Past and present land use

Past and present use of the lease has been mining Gilsonite and grazing. American Gilsonite started mining on this lease in 1992 and again in 1998. Mining was curtailed due to low sales volume for this ore type. The roads accessing and crossing this lease have been used by the general public for years.

### **Surface Waters**

The lease has no perennial drainages, there are small intermittent drainages. As the annual average rainfall is very small no control measures are anticipated. Small berms may be necessary around the ore bins to prevent Gilsonite from washing away in the event of a rain storm.

### **Ground Water**

Ground water is not anticipated at this location however, in the event of ground water, the AO would be immediately notified and American Gilsonite would immediately comply with the EPA's NPDES Water Quality Standards by sampling and monitoring. Our NPDES permit for this lease is attached.

### Soils and subsoils

The Mine Safety and Health Administration (MSHA) requires, in certain instances, for the roads to be bermed for safety purposes. Rather than to disturb more land to collect these materials, we would propose using existing stockpiled soils and subsoils for this purpose. These berms would then be reclaimed in final reclamation.

There is an existing soil stockpile which was seeded in the past, this pile is signed. Any new reclaimed soil would be added to this existing storage area. This area is marked on the attached map. Waste stockpiles will not be allowed.

The soil in this lease area has been classified as 100% Walknolls-Gilston association in the *Soil Survey of Uintah Area, Utah – Parts of Daggett, Grand and Uintah Counties*<sup>1</sup> by the USDA Natural Resources Conservation Service. This survey states that the soil in the lease area consists of 55% Walknolls and similar soils, 35% Gilston and similar soils

and 10% minor components. The parent material for Walknolls soils is listed as slope alluvium from sandstone. The typical profile for Walknolls soils is: A-0 to 3 inches; very channery loam, Bk1-3 to 7 inches; very channery loam, Bk2-7 to 16 inches; extremely channery sandy loam, R-16 to 20 inches; unweathered bedrock. The parent material for Gilston soils is listed as alluvium derived from sandstone. The typical profile for Gilston soils is: A-0 to 4 inches; sandy loam, Bk-4 to 52 inches; gravelly sandy loam, Bkny-52 to 68 inches, gypsiferous loam.

### **Acres Disturbed**

It is estimated that a total of 3.3 acres would be disturbed. This mining area is bonded under our "Reclamation Contract" with the state of Utah. A treasury bond for the area is also going to be issued for the BLM.

# Access to the site including road construction width and length

Access from the north is off the main road that goes to "Little Bonanza". There is a short spur off of the lease of approximately 25 meters in length and the ROW application for this short spur has been filed with the BLM. The access from the south is from American Gilsonite fee land. The road on the lease is approximately 1300 feet in length and varies from 15 to 20 feet in width. No new road construction is necessary. A road that will be approximately 17' x 210' will need to be constructed to access the escape shaft.

### Geology

# General Description including generalized stratigraphic section

Geologically the area consists of interbedded sandstones and bentonitic clays of the Uinta formation. Gilsonite occurs in parallel, near vertical fractures in the Uinta Formation. The Gilsonite bearing fractures often outcrop and can go up to 2,000 feet in depth and be as long as 22 miles varying in width from a few inches to 22 feet. A generalized stratigraphic section is attached.

### Reserves on Lease

American Gilsonite estimates reserves of approximately 219,000 tons But it appears that one half of these reserves will most likely not be mined due to the vein being too narrow at depth. Diamond drilling may be required in the future to determine reserves at depth.

# Proposed cutoff grade and minimum mining thickness

Minimum mining thickness is 18 inches, we have no cut-off grade (irrespective of the melting point), as it can be used in some product we make.

### Maps showing Gilsonite thickness

Cross section is attached

### Mining Plan and Methods of Operation

American Gilsonite Company (or its predecessor) has been mining Gilsonite in the Uintah basin for over 100 years; in 1991 it was acquired by a group of private investors.

### General Mine startup

As mining has taken place in the past on this lease, the shaft is currently in existence; the general start up will consist of installing a hoist, ore bins, compressors and fans for the air lift system. Depending on sales, it is anticipated the mine production capacity will be 30 to 100 tons per day with the ore grade expected to be "Selects" Grade. Expected monthly production rate may vary from 480 to 1,600 tons. Based upon previous mining experience in the area, average monthly production is anticipated to be around 480 tons.

### Mining Plan

The I-30 shaft is in existence and its dimensions are approximately 18 feet in length and 3 feet in width. The shaft is currently at a depth of 138 feet. Before the mining reaches 300 feet in depth, an escapeway shaft and hoist will have to be installed (see attached map for locations within the lease). Ventilation and ore removal is accomplished with the installation of an airlift pipe in the shaft and mine which are in turn powered by two 100 hp fans on the surface.

The men and material hoist is a Vulcan Denver model, single drum with a 50 hp motor and a 5/8 inch hoist rope. The drum will hold approximately 1,200 feet of cable and will meet all MSHA safety standards.

The mining sequence is dependent on sales of Gilsonite. Each vein contains ore of different properties which our customers specify based upon their needs.

Mine development begins with the sinking of the shafts on about 1,000 foot centers along the strike of the vein. After connecting the shaft with horizontal drifts, mining starts in blocks of Gilsonite on both sides of the shaft. Hand labor is used underground to reduce contamination of the ore from the surrounding rock. Miners, using air-driven chipping hammers, break the Gilsonite working upward on a 40-45 degree angle. Broken ore falls by gravity to the bottom of the slope where it is pulled by vacuum into a 14 inch pipe and pulled up to the surface. Where Gilsonite has been mined, timbers are placed from wall to wall at intervals to provide support and working platforms. A horizontal block of Gilsonite approximately 30 feet in depth from the surface is left in place. Fans located on the surface pull air that transports the ore to the top of the head frame, where it is discharged into a 100 ton storage bin. The air is filtered to eliminate

any dust being discharge to the atmosphere. The mined ore is trucked from the mine to the processing plant.

Once the block of Gilsonite is mined out, new horizontal drifts are cut and the process starts over. The "life" of a mine varies between 4 to 10 years depending on the type of ore and market conditions. Sometimes a mine will go inactive for a few years until demand for that ore type improves. At I-30, the shaft will be sunk deeper to approximately just above the 300 foot level. This shaft sinking should take approximately 3 months. At approximately just above the 300 foot level, a horizontal drift will be pushed 800' to the escapeway location to the southeast. This drift will take approximately 4 months to push 800'. At this spot, the escape shaft will then be drilled down to this level with a 24 inch drill bit; all cuttings will be kept in the mine. A slope will then be driven underneath the drift from the main shaft to the escapeway. This slope should take approximately 8 months to push 800'. All other drifts and slopes between the main shaft and the escapeway shaft should take the same amount of time as the first ones. After the first drift and slope are driven from the main shaft to the escapeway, a drift and then a slope will then be driven to the northwest of the main shaft at this same depth, until reaching the lease boundary. The drifts and slopes on this northwest side of the main shaft should take approximately half the time of the drifts and slopes between the main shaft and the escapeway shaft. Additional drifts/slopes are driven above and below these initial drifts/slopes as shown on Figure 2. Horizontal floor level is normally established on 70-100 foot vertical centers, leaving an approximately 10 foot thick pillar between stoping areas. The mining progression depends upon the grade of ore encountered at the different depths in the mine, and upon current sales demands. Mining may progress deeper or shallower depending upon the grade of ore that is needed at the time. As the mine progresses deeper, the escape shaft is carried downward with the mine. It is anticipated that the ore between the escape shaft and the southeast lease boundary will be mined after all mining to the northwest of the escape shaft is completed. This block of ore will be mined utilizing the same methods described above. The drifts and slopes in this area of the mine will take approximately the same amount of time to develop as the drifts and slopes between the main shaft and the northwest lease boundary. Boundary pillars most likely will not be established unless safety considerations require it.

# Schedule or timing of I-30

Need to start mining as soon as possible in 2006, first quarter. It will take approximately 2-3 months to transfer the necessary equipment to the mine. Based upon today's sales forecast, we expect this mine to last around 4 years. Reclamation would begin around 2011.

### **Mining**

Ultimate Maximum Recovery (UMR) will occur by mining to the limits of the lease (assuming economic and technical feasibility). Due to varying geologic conditions, we can not guarantee any specific recovery rates; however, 75% extraction is common with

the remaining left for ground control reasons. A 30 foot surface pillar will be left. As American Gilsonite is the worlds leading Gilsonite mining company, we will aspire to achieve UMR of the reserves. As safety conscious miners, we also strive to provide a safe work environment for the miners and, at times, this can entail leaving additional ores in place to promote safety. Mining sequences will be determined by Market conditions, as different types of ore will be accessed at different depths with the vein. Ideal ore recoveries can be as high as 85% but we have seen recoveries as low as 65%. In the mining sequence, if barren rock in encountered, we will go over, under, or around it, leaving it in place.

Up to 5 miners per shift will be working at any given time along with intermittent maintenance and supervisory personnel. Haulage trucks to transport the ore to the plant will typical haul approximately 3 to 8 hours per working day depending on the production rate demanded by sales.

An equipment list is attached.

The planned extraction method is drift and slope, however for safety considerations this could be changed to an alternative mining method to allow safe extraction of the ores.

### Mine design and type

Mine will be drift and slope extraction unless ground conditions require a different extraction method.

Blasting should not be required.

Ground control is with timber stulls installed typically on 5 foot centers. Rock bolting could be used if safety dictates.

Mine recovery is as the UMR is described above

Ventilation Plan: Air is brought into the mine via the main and escapeway shafts to the intake of the air lift system, which lifts ore and air to the surface.

Haulage system: Haulage of ore from the mine to the surface is via a vacuum air lift system up the main shaft. On the surface, the ore is transported via 15 ton trucks.

Subsidence control has never been a problem in these mines and none is anticipated.

A future mining and a five year mining description is totally controlled by sales, which can vary.

There will not be tailings or waste disposal needed. By the ore storage bins a small catch basin will be constructed to catch any Gilsonite caught by rain waters.

### Ground water/water use

From the attachment on water table depths we have encountered, we do not anticipate any problem with ground water as this mine will not go to that depth. If in the event ground water is encountered, it will be monitored and analyzed according to our NPDES permit and discharged onto the surface. Sampling parameters with the EPA are detailed in the attached EPA NPDES Permit Authorization. We would contact the AO for any additional requirements.

Any water used would be from our existing water right number 49-222, however the only use for this would be for our fire fighting water tank that will be located on the lease.

### **Control Measures**

All employees are trained in first aid and fire control. Weeds will be removed from the areas of buildings and shafts and equipment and electrical substations. An appropriate number of ABC fire extinguishers will be provided (these are 20 lb units). All mobile equipment has fire extinguishers mounted on them and employees receive training on the proper use of them. No open fires would be permitted except in approved buildings in approved stoves or furnaces.

Soil erosion should not be a problem due to the small footprint of the mine, but would be addressed if the need arose.

Pollution of the surface would be minimal, Gilsonite dust and spillage from loading and shipping is controlled and kept to a minimum by using haul trucks which have lids, and loading chutes have dust control loading tubes which extend down into the truck during loading to minimize spillage. Bag houses are used in the air lift system to control dust and to provide an explosion barrier to kept dust out of the fan blades. Bag house filters are replaced as needed. No other air quality problem is expected.

There are no fish on or nearby the lease and wildlife avoids the mining areas, so no problems are foreseen. No harassing or shooting of wildlife would be allowed as would unnecessary off road driving. Miners would be instructed to maintain a clean and neat work place. Trash will be brought to Bonanza and disposed of in dumpsters that are regularly picked up by a waste disposal company. A chemical toilet will be located onsite.

Hazards to public safety and health are minimal, we have signs warning people of the hazards associated with the mines and the mines are manned 20 hours per day, and all employees have been trained to ask visitors to leave for safety reasons. When employees are not present, gates on the access roads are locked to prevent unauthorized entry. No health problems are known. Fencing will be installed around all shafts to prevent unauthorized entry.

### Reclamation plans

Because of the small footprint of the mine upon the lease, the environmental aspects or impacts are extremely small or non-existentant. Of the 12 critical elements of the environment, six areas of critical environmental concern (prime or unique farmlands, floodplains, wetlands/riparian zones, wild and scenic rivers, and wilderness areas) do not occur in the vicinity of the lease. Of the remaining six critical elements of environmental concern, cultural remains and Native American religious concerns would not be affected because there are none in the vicinity, and tow (air quality and water quality) would not be affected because of the nature of the project. The last two concerns are moot (T&E species and hazardous and solid waste) as there are none in the vicinity and hazardous waste will not be generated or used and all solid waste is disposed of according to our Environmental Management program.

No impacts to paleontological resources are anticipated as the area has already been disturbed. Gilsonite is the only geologic feature to be disturbed and it contains neither archaeological nor paleontological resources.

Reclamation schedule or timing. Upon completion of mine operations, all machinery, equipment, and debris would be removed from the site. The site (including roads) would be graded to conform as closely as possible to pre-mining conditions and covered with stockpiled topsoil. This would be done as soon as possible after operations cease, weather permitting. Permission from the AO would be obtained at that time (by the submittal of a final grading and seeding plan) with respect to soil preparation methods, final seed mixture to be used, type of planting method and planting season. The shafts will be covered with an appropriate concrete cap. Final cap design will be submitted to, and approved by, the AO prior to cap installation. The power line and poles will be removed after mining is complete in the area, and this disturbed area will be reclaimed at that time utilizing the same methods used for the rest of the lease.

The following is the proposed seed mix recommended by the Vernal Field Office: 4 lbs. Stipa comata (needle and thread grass), 4 lbs. Atriplex confertifolia (Shadscale saltbrush) and 4 lbs. Artemesia tridentata Wyomingensis (Wyoming sagebrush). All pounds are in pure live seed. Reseeding may be required if the first seeding is not successful. If the seed is broadcast, then the amounts listed above will be doubled. The seed tags will be submitted to the AO after placing the seed. The seed mix will be Pure Live Seed (PLS) and Certified Utah Prohibited Noxious Weed Free. The seed mix will be applied after ripping of the site takes place to ensure there is enough ground loosened to provide for proper plant growth. If any mulch is used, it will be certified weed free hay.

### **Production Verification**

We would submit maps and data quarterly to the AO.

# Cultural, Archaeological, and Paleontological Feature:

The state of Utah conducted a Cultural Resources review of the area in 1992 and found no significant sites. American Gilsonite would inform all employees that if a site is uncovered during any mining or construction that all activities must immediately stop and the AO would be notified. Historic properties would be avoided or mitigated through an approved data recovery plan. Collection of cultural or archaeological resources would not be allowed.

Employees would not be allowed to collect or remove any paleontological resources and the AO would be notified of the discovery of any.

### Other

Hazardous materials will not be used. Less than 10,000 lb, of any chemical(s) from the EPA's Consolidated of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1976 and less than the <a href="https://example.com/Threshold-Planning Quantity">Threshold Planning Quantity (TPQ)</a>) of any extremely hazardous substances as defined in 40 CFR 355 will be used, produced, transported, stored or disposed of annually in association with the proposed mining operation.

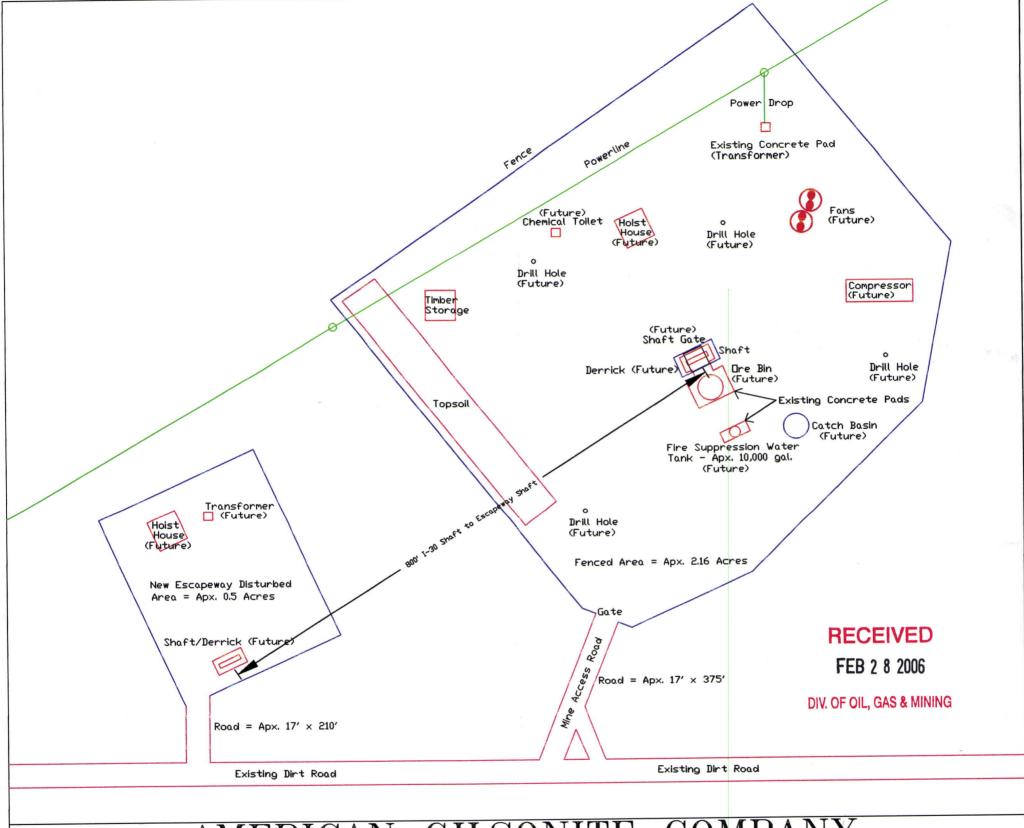
Our SPCC plan and Waste Handling Procedure are attached. Noxious weeds would be monitored for and controlled by spraying or mechanical removal. A pesticide/herbicide use plan would be submitted to the AO for approval prior to the application of any chemicals. We will follow the Utah State Dept. of Ag. and County extension plans, and BLM weed lists.

Electrical power for the site will come from an existing power line owned by AGC as shown on Figure 1. The I-30 shaft area will be illuminated during the early morning and evening hours. The escapeway shaft area will not be illuminated.

At some time in the future it may be necessary to do exploration drilling, at the appropriate time, a plan would be submitted for the AO's approval.

# **Bibliography**

 Soil Survey of Uintah Area, Utah – Parts of Daggett, Grand and Uintah Counties, United States Department of Agriculture (USDA), Natural Resources Conservation Service – Garth W. Leishman, Robert H. Fish and Randy J. Lewis, 1997.



# AMERICAN GILSONITE COMPANY

DATE: 10/18/05

SCALE: NOT TO SCALE, "AS-BUILT" SCALE DRAWING TO BE SUBMITTED AFTER CONSTRUCTION IS COMPLETE

DRAWN BY: JCJ

UPDATED BY: JCJ DATE: 02/23/06

INDEPENDENT 30
Federal Lease UTU-78405
Figure 1 - Surface Facilities